DOCUMENT RESUME

ED 455 783 IR 020 739

AUTHOR	McCrary, Nancye E.
TITLE	Expanding a Model for Affective Development: Implications for an Activity Component.
PUB DATE	2000-10-00
NOTE	13p.; In: Annual Proceedings of Selected Research and Development Papers Presented at the National Convention of the Association for Educational Communications and Technology (23rd, Denver, CO, October 25-28, 2000). Volumes 1-2; see IR 020 712.
PUB TYPE	Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Activities; *Affective Behavior; Instructional Design; Learning Activities; Learning Theories; Models; Multimedia Materials; Social Bias; Social Discrimination; World Wide Web

ABSTRACT

One useful framework for understanding and articulating instructional design to change biased beliefs is the Martin and Reigeluth model for affective development, appearing in Volume II of Reigeluth's "Instructional-Design Theories and Models" (1999). Using this recently developed framework to examine a Web-based multimedia instructional program aimed at affecting biased beliefs suggested that the addition of activity components and the language of activity theory may have potential to extend instructional theory on affective learning. Consideration of action as both internal and external enhances the model in a way that facilitates design and evaluation of instruction to affect biased beliefs about difference. This paper examines some of the implications of including the concept of activity in the Martin and Reigeluth model for affective development. (Contains 46 references and 8 tables.) (Author/AEF)

Reproductions supplied by EDRS are the best that can be made
from the original document.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

M. Simonson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Expanding a Model for Affective Development: Implications for an Activity Component

Nancye E. McCrary
University of Kentucky

ED 455 783

Abstract

One useful framework for understanding and articulating instructional design to change biased beliefs is the Martin and Reigeluth model for affective development, appearing in Volume II of Reigeluth's Instructional-Design Theories and Models (1999). Using this recently developed framework to examine an instructional program aimed at affecting biased beliefs suggested that the addition of activity components and the language of activity theory may have potential to extend instructional theory on affective learning. Consideration of action as both internal and external enhances the model in a way that facilitates design and evaluation of instruction to affect biased beliefs about difference. This paper examines some of the implications of including the concept of activity in the Martin and Reigeluth model for affective development.

Introduction

While facilitating affective change has long been an issue in efforts to impact human performance (Simonson, 1995), it has most often played a rather cursory role in the development of instructional systems (e.g., Martin & Reigeluth, 1999; Kamradt & Kamradt, 1999). Moreover, when affect is addressed in the design of learning and performance systems it is often done so as an aside to performance outcomes and is fragmented as a separate, less significant domain. For example, the Dick & Carey (1996) model of systematic design addresses learner' attitudes as represented by behaviors that can be modeled and reinforced relative to intended performance outcomes. This model relies on attention, relevance, confidence, and satisfaction as related to performance goals. Such an approach tends to fragment internal and external processes and may serve traditional practice while actually constraining design. Until recently few alternative strategies for affecting attitudes existed in the field of instructional systems design (ISD). Whether this is the result of inadequate paradigms, a quest for certainty (e.g., Dewey, 1929), or, as Simonson (1995) suggests, the lack of a direct causal relationship between affect and achievement, is of less concern here than examining the potential of extending a conceptual model to guide the design of instruction aimed at affective change.

During an extensive search for instructional theory to guide the development of an instructional narrative simulation, the Martin & Reigeluth conceptual model emerged in ISD literature, offering a helpful tool for deeper thinking about affective instruction. An analysis of the instructional simulation, relative to this model, revealed, as Martin and Reigeluth indicate, that their model is incomplete (Reigeluth, 1999). This paper presents an analysis of an instructional multimedia program using the Martin and Reigeluth conceptual model. Additionally, it attempts to initiate consideration of certain aspects of activity theory as a means to enhance the model and advance development of instructional theory on affective learning.

Background for Analysis

The Martin and Reigeluth conceptual model for affective development is used here to examine a web-based multimedia instructional program aimed at changing biased beliefs about difference in sexual orientation. Jeff's Story was initially designed as a paper and pencil narrative simulation using true story narrative to situate the learner as a character in an unfolding story. It was conceived as an instructional prototype to address contemporary social problems of bias and discrimination based on a range of human differences, including racism, sexism, cultural discrimination, and homophobia. Bias about differences in sexual orientation became an initial focus because it continues to be acceptable and openly expressed in contemporary American society (e.g., Rhoades, 1994; Tierney, 1997). Developing a theoretical framework for such an innovative and controversial design necessitated reaching beyond the foundation of narrative theory (e.g., Britton & Pellegrini, 1990; Bruner, 1986, 1996; Cole, 1997; Fisher, 1995; Howard, 1991; Polkinghorne, 1988; Sarbin, 1986) to include theory on situated cognition, anchored instruction, and case study (e.g., Anderson, Reder, & Simon, 1996; Bliss & Mazur, 1996; Brown, Collins, & Duguid, 1989; Cognition and Technology Group; 1990; Lave & Wenger, 1991; Mazur & Bliss, 1995; Young, 1993) culture study and critical social theory (e.g., Appiah & Gutmann, 1996; Ayers, et al., 1998; hooks, 1994; Matsuda, et al., 1993; Merry, 1990; Peshkin, 1991; Rhoades, 1994; Tierney, 1997), moral education (e.g., Kohlberg, 1971; Petrovic, 1999; Vitz, 1990), and perception and aesthetics (e.g., Dewey, 1934 ; Eisner, 1994 ; Greene, 1995). These

IR020739

2 BEST COPY AVAILABLE

rich theoretical perspectives were combined with new research findings on issues such as teaching tolerance with stories and arguments (Colesante & Biggs, 1999), reactions to racist hate crimes (Craig, 1999), and anti-gay behavior (Franklin, 2000). While all of this provided important foundation for continued development of the instructional program, there was relatively little on which to rely in ISD until Charles Reigeluth published volume II of Instructional-Design Theories and Models in 1999. The conceptual model developed by Martin and Reigeluth for this volume, along with subsequent chapters dealing with topics ranging from attitude development to character and spiritual development (Kamradt & Kamradt, 1999; Lickona, 1999; Moore, 1999) offered opportunity to examine Jeff's Story through an ISD lens.

Rationale for Consideration of Activity Theory

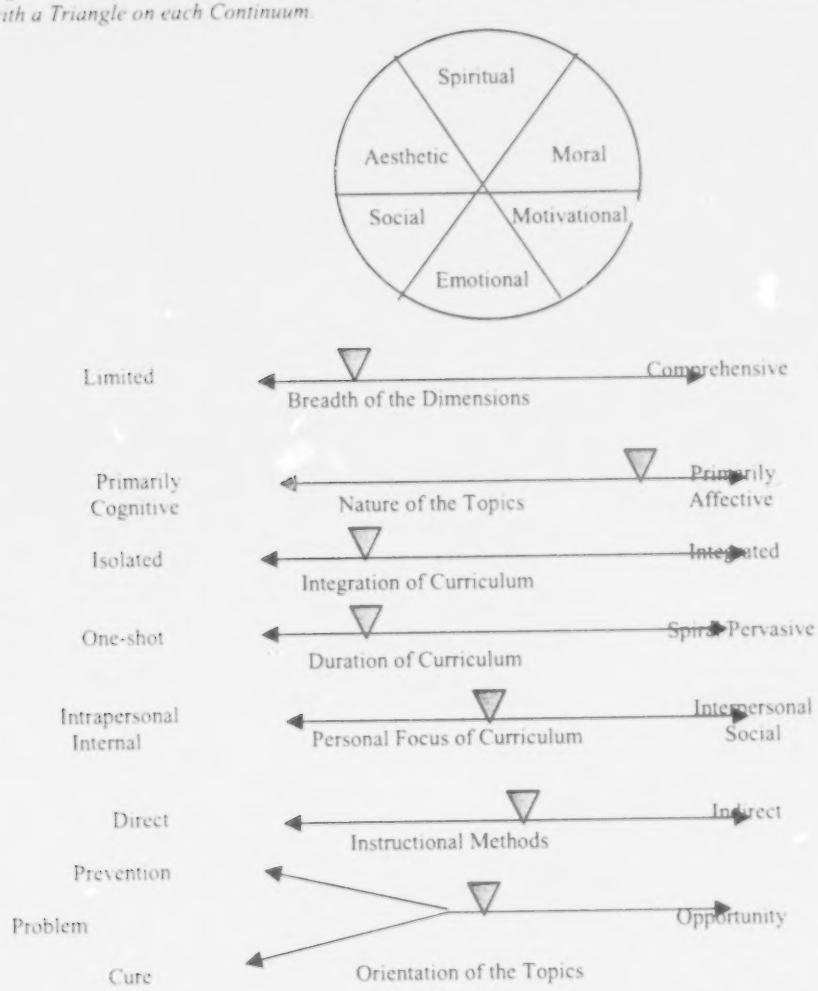
The Martin and Reigeluth model includes six dimensions of affective development and three identified components for each dimension. The dimensions are (1) emotional, (2) moral, (3) social, (4) spiritual, (5) aesthetic, and (6) motivational. The components of each dimension include, (a) knowledge, (b) skills, and (c) attitudes, as well as a fourth component labeled *other* to highlight that the model is incomplete. As such, it invites further development and encourages research and theory on affective learning in ISD. For example, according to Martin and Reigeluth, emotional development can be viewed as ability to recognize, express, and, as appropriate, control one's feelings, emphasizing understanding and managing feelings as emotional development. Yet, when applied to the design and evaluation of one instructional narrative simulation to change biased beliefs this aspect of the model lacks the means to articulate mediation of internal and external emotional activity. Designing instruction aimed at affective learning may require tools that ignite internal activity in ways that generate reflective responses not readily manifest in external form. Assessing the extent of actual change in biased attitudes about difference highlights the need to account for potentiality, intent, and generative change. Activity theory makes it possible to explain such affective changes without reducing complex processes to measures of behavior (Wertsch, 1998). It offers concepts for describing human activity and includes the central notion of mediation (e.g., Nardi, 1997; Wertsch, 1998; Zinchenko, 1997) that can be extended to instructional products. Activity theory is also concerned with setting or context in a manner that facilitates consideration of social construction of meaning, which is so crucial to design for affective learning. In these ways the language of activity theory assists in broadening the scope of instructional design aimed at affective outcomes.

Since activity theory is highly complex and offers no concrete methodology or procedural guidelines, it is important to keep in mind that it can confound design efforts, as well as extend design considerations. The challenge here is to incorporate several useful concepts of activity theory without losing sight of the focus on design of instructional products for affective learning. Therefore, this analysis is limited to the use of a few key concepts from activity theory, including 1) activity as internal and external, 2) tools as mediators of human thought, 3) thought as potential for behavior, and 4) intent as central to affective change.

Application Model

Martin and Reigeluth provide an application model based on the conceptual model for affective development. Locating Jeff's Story in this application model provides the groundwork for further analysis (Figure 1). For example, Jeff's Story is an instructional response to numerous hate crimes in the United States and, as such, is designed to be both preventive, as well as curative. Perhaps the most ambitious goal of this instructional program is the opportunity it creates for users to begin a process of embracing diversity in a country with rapidly growing ethnic populations and major shifts in majority status. Jeff's Story is designed as an isolated instructional event for adults, yet, because of the breadth of resources that users may access throughout the exercise, it has structural potential to be interdisciplinary. It is a "one-shot" experience although an important goal of the program is to ignite generative reflection and continued dialogue and therefore, can also be considered a "spiraling" learning experience. For instance, if users take away from the experience an understanding that beliefs are not always based on factual information, then the potential exists for reconsideration of a range of beliefs about difference. An important component, as evidenced in user testing (McCrary & Mazur, 1999), is a group discussion that follows the instructional event, offering opportunity for learners to express personal understandings in public conversation. In this way the program is both internal and social (intrapersonal and interpersonal) to the extent users contribute fully and honestly to the discussion. The instructional methods employed in the narrative simulation are direct in the sense that users become a character in an unfolding story that includes dilemmas to which they are asked to respond. The methods can also be considered indirect in efforts to engender empathy and reflection.

Figure 1. Adaptation of the Martin &Reigeluth Application Model as Applied to Jeff's Story, positioned in the Model with a Triangle on each Continuum.



The Conceptual Model

The design of Jeff's Story, as it incorporates concepts of activity, reintegrates the six dimensions of affective development while primarily focusing on social and emotional change. For example, it includes aesthetic mediators in the form of original music and images in an effort to enhance emotional responses, as well as to create interest and motivation. Jeff's Story includes a moral dimension by presenting possible conflicts in an effort to create cognitive dissonance (e.g., Piaget, 1970) between stereotypical beliefs and ethical standards. Affective design features are supported by didactic information in the form of historical accounts, news articles, and hyperlinks to websites that provide additional information.

Analysis

In order to provide a detailed analysis of Jeff's Story as related to the Martin and Reigeluth model it is helpful to examine each dimension of the model separately as it is represented in the instructional program. Following Table 1, which shows the original conceptual model, each dimension is discussed briefly and represented in Tables 2-7 as

BEST COPY AVAILABLE

adapted to Jeff's Story in the language of activity theory. Each dimension, as shown in Tables 2-7, revolves around a major instructional goal or enhanced ability (e.g., Zinchenko, 1997), including empathy, reflection, imagination, aspiration, prosocial values, and democratic principles. It is important to keep in mind that Martin and Reigeluth focus their model on school-based curricula, while Jeff's Story is designed for adults who are parents or professionals working with adolescents. Tables 2-7 illustrate an examination of the instructional program relative to a) design components, b) mediating elements, and c) evaluation data for each affective dimension. While knowledge, skills, and attitudes are represented as distinct learning activities to compliment the structure of the Martin & Reigeluth model, it is important to remember that, from an activity perspective, these domains may be inseparable.

Table 1. Martin and Reigeluth Conceptual Model for Affective Development

	COMPONENTS OF INSTRUCTIONAL VALUE			
DIMENSIONS	**Knowledge**	**Skills**	**Attitudes**	**?**
Emotional Development	Knowing others experience the same emotions you do, such as joy and anger.	Recognizing emotions and controlling one's own emotions.	I want to be happy. I don't like to be angry.	?
Moral Development	Understanding moral and ethical rules of the culture, such as caring, justice, and equality.	Moral reasoning and problem-solving skills in the realm of morals.	I want to be honest and I am in favor of having ethical standards.	?
Social Development	Understanding group dynamics and democratic ideals.	Social skills, including interpersonal communication skills.	I want to interact positively with others and am opposed to resolving disagreements by fighting.	?
Spiritual Development	Knowledge of religious precepts about the spiritual world, such as the nature of the soul.	Skills for getting in touch with your inner self. Ability to love others selflessly.	I want a spiritual life and am in favor of prayer to build a relationship with God.	?
Aesthetic Development	Understanding the subjective nature of aesthetics, such as the relationship between one's values and one's judgments.	Skills for assessing aesthetic qualities and generating aesthetic creations.	I want to surround myself with things of beauty.	?
Motivational Development	Understanding internal and external rewards for sustained activity, such as joy and sense of accomplishment.	Skills for developing one's interests, both immediate and life-long.	I want a career that I enjoy.	?

Emotional Development as a Dimension of Affective Development

Emotional development can be viewed as ability to recognize, express, and, as appropriate, control one's feelings. Individuals can move through feeling states without associating meaning or understanding to those emotions. Martin and Reigeluth emphasize understanding and managing feelings as emotional development. True story narrative simulation, focused on emotionally difficult topics, provides experience and practice in identifying feelings regarding dilemmas in the story.

Table 2. Analysis of the Instructional Program Relative to Emotional Dimension.

Empathy	Affective Learning Activities Relative to Emotional Dimension		
	Knowledge Activity	**Skill Activity**	**Attitude Activity**
Conceptual Model for Affective Development (Martin & Reigeluth)	Knowing others experience the same emotions you do, such as joy and anger.	Recognizing emotions and controlling one's own emotions.	I want to be happy. I don't like to be angry.
Narrative Simulation to Affect Biased Beliefs about Homosexuality (Jeff's Story)	Recognizing inconsistencies between long held beliefs and new information.	Simulated problem solving as a character in an unfolding story.	Desire to understand why I feel the ways I do about homosexuality.
Design Components	Back Page News. Historical Accounts. News Articles. Links to Advocacy Groups.	Unfolding Narrative. Questions. Response Choices. Group Discussion.	Perspectives. Concerns. Voices.
Mediating Elements	User controlled navigation. Access to a variety of information presented formally, informally, and as personal statements.	Story Veracity. Fidelity to True Story. Storied Dilemmas.	Images. Music. Authentic Statements. Color.
Evaluation Data	Computer Tracking Data. Program Evaluation. Video Data. Individual Interview Data.	Computer Tracking Data. Program Evaluation. Observation of group discussion.	Retrospective Program Evaluation Questions. Follow-up Evaluation. Analysis of individual interview data.

Moral Development as a Dimension of Affective Development

Although moral development has been addressed in many ways, Martin and Reigeluth describe it as building codes of behavior and rationales for following those codes. They offer as an example having positive attitudes about empathy as compared to understanding or experiencing feelings of empathy, which are components of emotional development. This area of affective development is concerned with what is considered right and wrong behavior or action in relation to issues like social justice. Although Jeff's Story attempts to avoid prescriptive codes of behavior, it offers opportunity for moral development through a process of decision making in a simulated environment. Jeff's Story also provides opportunities to identify biases, discuss those biases with others, and express rationales for personal views on homosexuality. The sequencing of the storied narrative follows a pattern of describing particular dilemmas followed by questions and response choices. Each response choice is linked to a discussion of possible consequences as a result of that choice. This practice of problem solving is designed to stimulate thinking that will assist users in identifying their own beliefs relative to each situated problem. This unfolding process itself has the potential to create cognitive dissonance, which in turn has the potential to stimulate reflection. Such reflection may be a necessary internal activity for generating serious reconsideration of long held beliefs. In terms of moral development, as defined by Martin and Reigeluth, Jeff's Story is designed to stimulate examination of beliefs about homosexuality by juxtaposing socially constructed beliefs, one's own situated code of ethics or morality, and disturbing events in the instructional narrative.

Table 3. Analysis of the Instructional Program Relative to Moral Dimension.

Prosocial Values	Affective Learning Activities Relative to Moral Dimension		
	Knowledge Activity	**Skill Activity**	**Attitude Activity**
Conceptual Model for Affective Development (Martin & Reigeluth)	Understanding moral and ethical rules of the culture, such as caring, justice, and equality.	Moral reasoning and problem-solving skills in the realm of morals.	I want to be honest and I am in favor of having ethical standards.
Narrative Simulation to Affect Biased Beliefs about Homosexuality (Jeff's Story)	Understanding that biased beliefs are based (in part) on a social norm of heterosexuality.	Using independent thinking to resolve conflict between moral stance on homosexuality and moral beliefs about respect for others.	Desire to treat all people according to ethical standards.
Design Components	Historical Accounts News Articles Statistical Information	Strategic Questions Response Choices Response Choice Discussions	True Story Narrative Authentic Personal Statements
Mediating Elements	Juxtaposition of didactic information on particular viewpoints of homosexuality with true story narrative.	Situating the user as a character in an unfolding story.	Disturbing true story problems and outcomes.
Evaluation Data	Computer Tracking Data Program Evaluation Individual Interview Data	Observation of group discussion, comparison of tracking data with interview transcripts relative to what users say about navigation through resources in the program.	Observation of Group Discussion Retrospective Program Evaluation Questions Individual Interview Data

Social Development as a Dimension of Affective Development

Social development relates to having and maintaining positive relationships with others. It has to do with valuing relationships and distinguishing positive ways to promote such interactions. Jeff's Story is perhaps focused more on social development than any of the other dimensions. It offers experience and information designed to promote group discussion in which users are expected to engage in dialogue with others to share perspectives on homosexuality and discrimination.

Table 4. Analysis of the Instructional Program Relative to Social Dimension.

Democratic Principles	Affective Learning Activities Relative to Social Dimension		
	Knowledge Activity	**Skill Activity**	**Attitude Activity**
Conceptual Model for Affective Development (Martin & Reigeluth)	Understanding group dynamics and democratic ideals.	Social skills, including interpersonal communication skills.	I want to interact positively with others and am opposed to resolving disagreements by fighting.
Narrative Simulation to Affect Biased Beliefs about Homosexuality (Jeff's Story)	Hearing and understanding the views of others on prevention of adolescent suicide and homosexuality.	Identifying and articulating one's own perspectives on homosexuality.	Desire to maintain positive interactions with all others even when they are different or disagree with my views.
Design Components	Historical Accounts. Authentic Statements. News Articles. Back Page News. Links to Resources.	Strategic Questions. Response Choice Discussions. Group Discussion.	Unfolding Storied Dilemmas. Authentic Statements. Disturbing Outcome.

Mediating Elements	Juxtaposition of the effects of discrimination with negative beliefs about homosexuality.	Identifying and articulating one's own beliefs regarding same-sex orientation.	Storied consequences of discrimination based on sexual orientation. Original Music.
Evaluation Data	Computer Tracking Data Program Evaluation Group Discussion Data Individual Interview Data	Observation of group discussion.	Program Evaluation Follow-up Evaluation Individual Interview Data

Spiritual Development as a Dimension of Affective Development

Martin and Reigeluth view spiritual development as distinct from religion. It is concerned with awareness of the human soul or spirit and the interconnectedness of all souls. Specifically, spiritual development relates to our ability to love all people based on a concept of oneness, according to these authors. Jeff's Story is directly related to this dimension in the sense that it juxtaposes universal concerns like caring for an adolescent who is struggling with a topic that many feel is unrelated to their own circumstances. It situates the distant other in the typical American home. This strategy is designed to encourage users to imagine the homosexual other as part of the family and as spiritually connected as anyone else.

Table 5. Analysis of the Instructional Program Relative to Spiritual Dimension.

Reflection	Affective Learning Activities Relative to Spiritual Dimension		
	Knowledge Activity	**Skill Activity**	**Attitude Activity**
Conceptual Model for Affective Development (Martin & Reigeluth)	Knowledge of religious precepts about the spiritual world, such as the nature of the soul.	Skills for getting in touch with your inner self. Ability to love others selflessly.	I want a spiritual life and am in favor of prayer to build a relationship with God.
Narrative Simulation to Affect Biased Beliefs about Homosexuality (Jeff's Story)	Understanding that religious/spiritual beliefs are constructed through past experiences and cultural influences.	Distinguishing truth from stories held as truth or religious doctrine.	Desire to resolve conflicts between religious beliefs, personal spirituality, and new feelings arising from simulated experience as the parent of a gay adolescent.
Design Components	True Story Narrative. Historical Accounts. News Articles. Authentic Personal Statements.	Storied Dilemmas. Strategic Questions. Response Choices.	Veracity of the narrative that assists users in imagining the adolescent in the story as their own son.
Mediating Elements	Storied juxtaposition of a typical adolescent who also happens to be gay.	Making difficult decisions as a parent of the adolescent in the story.	Confronting attitudes of others and recognizing one's own through group interaction.
Evaluation Data	Computer Tracking Data. Program Evaluation. Observation. Individual Interview Data.	Computer Tracking Data. Program Evaluation. Group Observation.	Retrospective Program. Evaluation Questions. Follow-up Evaluation.

Aesthetic Development as a Dimension of Affective Development

Aesthetic development is concerned with appreciation of beauty, which includes recognition, creation, and valuing aesthetic qualities. It is a development of sensitivity to one's internal and external environments. Aesthetics include organization of space, time, and thought in ways that are pleasing, ways that are congruent, unified, balanced, and interesting. It relates to cognitive dissonance theory in the sense that human beings may naturally seek balance and consonance in their minds, as well as in their surroundings. Beauty is in the mind of the beholder by virtue of the level of aesthetic development achieved. The design of Jeff's Story employs narrative and other

aesthetic mediators as central to affective instruction. These mediators include original art, chosen for qualities that have potential to enhance and extend the storied topics, original flute music, composed specifically for each story theme, and a variety of compositional elements to engender interest and facilit ate the process of making meaning of the events in the program. Since this instructional design and development project focuses on facilitating enhanced perception and stimulating reflection, concern for aesthetics is viewed as essential in mediating internal activity that may lead to new perspectives.

Table 6. Analysis of the Instructional Program Relative to Aesthetic Dimension.

Imagination	**Affective Learning Activities Relative to Aesthetic Dimension**		
	Knowledge Activity	**Skill Activity**	**Attitude Activity**
Conceptual Model for Affective Development (Martin & Reigeluth)	Understanding the subjective nature of aesthetics, such as the relationship between one's values and one's judgments.	Skills for assessing aesthetic qualities and generating aesthetic creations.	I want to surround myself with things of beauty.
Narrative Simulation to Affect Biased Beliefs about Homosexuality (Jeff's Story)	Understanding the subjective nature of beliefs about homosexuality and the opportunity afforded by subjectivity to imagine new ways of viewing same-sex orientation.	New appreciation of the beauty and function of human diversity, imagining positive ways to interact with homosexuals or others who are different in some way from oneself, and recreating one's own stories about same-sex orientation.	Desire to enrich and enhance one's life through interactions with those who are different from one's self and appreciate the subjective nature of diverse perspectives, as well as one's own subjectivity.
Design Components	Story Themes. Response Choices. Response Choice Discussions. Historical Accounts. Voices. Perspectives. Back Page News. Concerns.	Consonant and dissonant patterns in the narrative, imagery, and music.	True Story Narrative. Perspectives. Back Page News. Response Choice Discussions.
Mediating Elements	Images. Original music, composed to reinforce story themes. Simulated role as an actor in the in the story.	Solving problems, selecting possible responses, and reading contrasting excerpts of other's stories that inspire thinking about the subjective nature of that based on stories heard and remembered in ways that reinforce one's own beliefs and comfort.	Veracity. Fidelity. Imagery. Original music, composed to reinforce story themes. Group Interaction. Group Discussion.
Evaluation Data	Program Evaluation. Response Choices. Individual Interview Data. Group Discussion Data.	Computer Tracking Data. Program Evaluation. Individual Interview Data. Group Discussion Data.	Retrospective Program Evaluation Questions. Individual Interview Data. Group Discussion Data.

Motivational Development as a Dimension of Affective Development

Developing one's own interests is the major concern in motivational development. Preference, choice, focus, and navigation are all elements of Jeff's Story that acknowledge personal style and facilitate individual interests. While this instructional program is not specifically designed to promote motivational development it offers opportunity to identify preferences and navigate according to one's particular curiosity. Computer generated tracking data is used partially to provide insight into the motivations and interests of learners.

Table 7. Analysis of the Instructional Program Relative to Motivational Dimension.

Aspiration	Affective Learning Activities Relative to Motivational Dimension		
	Knowledge Activity	**Skill Activity**	**Attitude Activity**
Conceptual Model for Affective Development (Martin & Reigeluth)	Understanding internal and external rewards for sustained activity, such as joy and sense of accomplishment.	Skills for developing one's interests, both immediate and life-long.	I want a career that I enjoy.
Narrative Simulation to Affect Biased Beliefs about Homosexuality (Jeff's Story)	Understanding personal and social benefits of diversity.	Deconstructing one's own stories about people who are gay.	Desire to interact in positive ways with homosexuals or others who are different from one's self and feeling that such interaction will enrich one's life.
Design Components	Storied Dilemmas. Response Choices. Response Choice Discussions.	Simulated exposure to a variety of attitudes, beliefs, and information about homosexuality.	User Controlled Navigation. Historical Accounts. News Articles. Links to and Descriptions of Advocacy Groups. Concerns.
Mediating Elements	Reflection due to simulated experience with the perspectives of others.	Immediate feedback on response choices in the form of discussions of possible consequences associated with particular choices of action.	Stimulated experience in the role of a parent of the adolescent in the story.
Evaluation Data	Program Evaluation. Individual Interview Data.	Selected Response Choice Data. Retrospective Program Evaluation Questions. Individual Interview Data. Group Discussion Data.	Computer Tracking Data. Retrospective Program Evaluation. Observation of Group Interaction. Video Data of Group Discussion.

Research Implications

The integration of several key concepts from activity theory with the Martin & Reigeluth model serves research, as well as design, in developing instruction aimed at bias. For example, the conceptual model describes what learners will be able to do as a result of instructional intervention, while activity theory turns attention to the mediation of internal and external to create opportunity for new activity. Consideration of mediating internal and external activity provides opportunity for asking qualitatively different research questions that have more to do with how the process of affective change evolves. Relative to Jeff's Story, it is helpful to examine each dimension of affect (Martin & Reigeluth, 1999) through mediating processes. Aesthetic change, for example, includes 1) perception of the storied nature of beliefs, 2) imagination of what can be, 3) appreciation for the beauty of and necessity for human diversity. The questions evolve from "...ow to promote appreciation of beauty and style (Martin & Reigeluth, p. 94)" to more specific inquiry into perception and imagination. Table 8 frames Jeff's Story relative to mediating activities of instructional goals.

BEST COPY AVAILABLE

Table 8. Mediating Activities for Desired Instructional Outcomes for Jeff's Story.

Dimension	Mediating Activity	Desired Instructional Outcomes
Aesthetic	Perception	of the storied nature of beliefs.
	Imagination	of what can be.
	Appreciation	for the beauty and necessity of diversity.
Social	Articulation	of biased beliefs in a group setting.
Emotional	Empathy	for the feelings and experiences of others.
	Tolerance	for the differences of others.
Spiritual	Self reflection	on the nature and origins of one's beliefs about others.
	Connectedness	to all human beings.
Motivational	Value	for diversity.
	Desire	to be tolerant.
Moral	Principles	guiding behavior towards others.
	Fairness	in relation to issues of social justice.

Summary

As apparent in both the Martin and Reigeluth model and the analysis of Jeff's Story, instructional priorities for affective outcomes, as opposed to performance or behavioral goals, may require new ways of approaching design and research. Including certain concepts of activity theory extends consideration of learning as integrated internal and external processes that are facilitated by mediating processes like perception, imagination, and reflection. This hybrid approach prioritizes mediation over information, feelings over facts, and meaning over certainty. Traditional concern for structure and sequence of instruction is transformed to artful composition of learning environments that provide opportunity and potential for new representations. Such an approach to affective learning may actually promote a broader understanding of human development, integration of interdisciplinary perspectives, and understanding design as the composition of elements in space and time to promote learning.

References

Anderson, J. R., Reder, L. M., & Simon, H. A. (1996). Situated learning and education. Educational Researcher, 25(4), 5-11.

Appiah, K. A., & Gutmann, A. (1996). Color conscious: The political morality of race. Princeton, N.J.: Princeton University Press.

Ayers, W., Hunt, J. A., & Quinn, T. (Eds.). (1998). Teaching for social justice. New York: The New Press and Teacher's College Press.

Bliss, T. & Mazur, J. (1996). Common thread case project: Developing association of experience and novice educators through technology. Journal of Teacher Education 47(3), 185-190.

Britton, B. K. & Pellegrini, A.D. (1990). Narrative thought and narrative language. Hillsdale, New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. Educational Researcher, 18(1), 32-42.

Bruner, J. (1986). Actual minds: Possible worlds. Cambridge, MA: Harvard University Press.

Bruner, J. (1996). The Culture of education. Cambridge, MA: Harvard University Press.

Capper, C.A. (1999). (Homo) sexualities, organizations, and administration: Possibilities for in(queer)y. Educational Researcher, 28(5), 4-11.

Cognition and Technology Group at Vanderbilt (1990). Anchored instruction and its relationship to situated cognition. Educational Researcher, 19(6), 2-10.

Cole, H. P. (1997). Stories to live by, A narrative approach to health-behavior research and injury prevention. In D. S. Gochman (Ed.), Handbook of health behavior research methods (pp. 325-348). New York: Plenum.

Colesante, R. J. & Biggs, D. A. (1999). Teaching about tolerance with stories and arguments. Journal of Moral Development, 28(2), 185-199.

BEST COPY AVAILABLE

Craig, K. M. (1999). Retaliation, fear, or rage. An investigation of African American and White reactions to racist hate crimes. Journal of Moral Education, 15, 110-115.

Dewey, J. The quest for certainty. In M. Greene, M. Releasing the imagination, Essays on education, the arts, and social change. San Francisco: Jossey-Bass Inc., Publishers, 1995.

Dewey, J. Art as experience. New York: Minton, Balch, 1934.

Dick, W. & Carey, L. (1996). The systematic design of instruction. New York: HarperCollins Publishers Inc.

Eisner, E. W. (1994). Cognition and curriculum reconsidered. New York: teachers College Press.

Fisher, W. R. (1995). Narration, knowledge, and the possibility of wisdom. In R. F. Goodman and W. R. Fisher, (Eds.), Rethinking knowledge: Reflections across the disciplines (pp. 169-192). New York: SUNY.

Franklin, K. (2000). Antigay behaviors among young adults prevalence, patterns, and motivators in a noncriminal population. Journal of Interpersonal Violence, 15(4), 339-362.

Greene, M. (1995). Releasing the imagination, Essays on education, the arts, and social change. San Francisco: Jossey-Bass Inc., Publishers.

hooks, b. (1994). Teaching to transgress: Education as the practice of freedom. New York: Routledge.

Howard, G. S. (1991). Culture tales a narrative approach to thinking, cross-cultural psychology, and psychotherapy. American Psychologist, March, pp. 187-197.

Kamradt, T. & Kamradt, B. (1999). In Reigeluth, C. M. (Ed.) Instructional-design theories and models Volume II (pp. 563-590), Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Kohlberg, L. (1971). Stages of moral development. In J. Reimer, D. P. Paolitto, and R. H. Hersh (1983). Promoting moral growth Second Edition (pp. 43-116). New York: Longman.

Lave, J., & Wenger, E. (1991). Situated learning. New York: Cambridge.

Licona, T. (1999). In Reigeluth, C. M. (Ed.) Instructional-design theories and models Volume II (pp. 591-612), Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Martin, B. L. & Reigeluth, C. M. (1999).). In Reigeluth, C. M. Instructional-design theories and models Volume II (pp. 485-509), Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Matsuda, M. J., Lawrence, C. R., Delgado, R., & Crenshaw, K. W. (1993). Words that wound, critical race theory, assaultive speech, and the first amendment. Boulder, CO: Westview Press, Inc.

Mazur, J. & Bliss, T. (1995). Casenet: Creating conditions for conversation and community for teachers in the midst of reform. In J.L. Schnase and L. Cunnius (Eds.) Proceedings of the annual computer support for collaborative learning conference (226-233). New York: ACM.

McCrary, N. & Mazur, J. (1999). Evaluating narrative simulation as instructional design for potential to impact bias and discrimination. In K. E. Sparks and M. Simonson (Eds.) 21st Annual proceedings of the Association for Educational Communication and Technology, Research and Theory Division. (187-198). Columbus, Ohio: RTS & Associates.

Merry, S. E. (1990). Getting justice and getting even, Legal consciousness among working-class Americans. Chicago: The University of Chicago Press.

Moore, J. (1999). In Reigeluth, C. M. (Ed.) Instructional-design theories and models Volume II (pp. 613-629), Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

Nardi, B. A. (1997). Context and consciousness, Activity theory and human-computer interaction. Cambridge, MA: The MIT Press.

Peshkin, A. (1991). The color of strangers, The color of friends: The play of ethnicity in school and community. Chicago: University of Chicago Press.

Petrovic, J. E. (1999). Moral democratic education and homosexuality: censoring morality. Journal of Moral Education, 28(2), 201-209.

Piaget, J. (1970). The affective unconscious and the cognitive unconscious. Structuralism (Chapter 5). New York: Basic Books.

Polkinghorne, D. E. (1988). Narrative knowing and the human sciences. Albany, NY: State University of New York.

Rhoads, R. A. (1994). Coming out in college, The struggle for a queer identity. Westport, CN: Bergin and Garvey.

Sarbin, T.R. (1986). The narrative as a root metaphor for psychology. In T.R. Sarbin, (Ed.), Narrative Psychology: The storied nature of human conduct (pp. 3-21). New York: Praeger.

Simonson, M. (1995). In Anglin, G. J. (Ed.) Instructional technology Past, present, and future (365-373), Englewood, Colorado: Libraries Unlimited, Inc.

Tierney, W. G. (1997). Academic outlaws, Queer theory and culture studies in the academy. Thousand Oaks, CA: Sage Publications, Inc.

Vitz, P. C. (1990). The use of stories in moral development: New psychological reasons for an old education method. American Psychologist, 45(6), 709-720.

Wertsch, J. (1998). Mind as action. New York: Oxford University Press.

Yngvesson, B. (1993). Virtuous citizens disruptive subjects order and complaint in the New England court. New York: Routledge.

Young, M. F. (1993). Instructional design for situated learning. Educational Technology Research and Development, 41(1), 43-58.

Zinchenko, V. P. (1997). Developing activity theory: The zone of proximal development and beyond. In B. A. Nardi, (Ed.), Context and conscious, Activity theory and human-computer interaction (283-324). Cambridge, MA: The MIT Press.

BEST COPY AVAILABLE